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Based on the previous libraries:

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cap.lbr
cap-fe.lbr
captant.lbr
polcap.lbr
ipc-smd.lbr

All SMD packages are defined according to the IPC specifications and
CECC<p>
<author>Created by librarian@cadsoft.de</author><p>
<p>
for Electrolyt Capacitors see also :<p>
www.bccomponents.com <p>
www.panasonic.com<p>
www.kemet.com<p>
http://www.secc.co.jp/pdf/os_e/2004/e_os_all.pdf (SANYO)
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for trimmer refence see :
<u>www.electrospec-inc.com/cross_references/trimpotcrossref.asp</
u><p>

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Based on the following sources:

Motorola : www.onsemi.com
Fairchild : www.fairchildsemi.com
Philips : www.semiconductors.com
Vishay : www.vishay.de

<author>Created by librarian@cadsoft.de</author></description>
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Microcontrollers, I2C components, linear devices<p>
http://www.st.com<p>
<i>Include st-microelectronics-2.lbr,
st-microelectronics-3.lbr.<p></i>

<author>Created by librarian@cadsoft.de</author></description>
<packages>
<package name="DIL-08" urn="urn:adsk.eagle:footprint:26738/1"
library_version="6">
<description>Dual In Line Package</description>
<wire x1="5.08" y1="2.921" x2="-5.08" y2="2.921" width="0.1524"
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ratio="10">>VALUE</text>
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</packageinstances>
</package3d>
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</library>
<library name="linear" urn="urn:adsk.eagle:library:262">
<description>Linear Devices<p>
Operational amplifiers, comparators, voltage regulators, ADCs, DACs,
etc.<p>
<author>Created by librarian@cadsoft.de</author></description>
<packages>
<package name="TO220V" urn="urn:adsk.eagle:footprint:16154/1"
library_version="7">
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<wire x1="5.08" y1="-1.143" x2="4.953" y2="-4.064" width="0.127"
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ratio="10">>NAME</text>

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ratio="10">>VALUE</text>
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<text x="-0.635" y="-3.175" size="1.27" layer="51" ratio="10">2</text>
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type="model" library_version="7">
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</packages3d>
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<library name="01-ITS Robotics">
<packages>
<package name="B2B-XH-A" urn="urn:adsk.eagle:footprint:36056265/2">
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</packages>
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type="box">
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</packageinstances>
</package3d>
</packages3d>
</library>
<library name="transistor-npn" urn="urn:adsk.eagle:library:398">
<description>NPN Transistors<p>
<author>Created by librarian@cadsoft.de</author></description>
<packages>
<package name="TO220" urn="urn:adsk.eagle:footprint:28453/1"
library_version="6">
<description>TO 220 horizontal</description>
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layer="21"/>
<wire x1="5.207" y1="-1.27" x2="5.207" y2="11.176" width="0.127"
layer="21"/>
<wire x1="5.207" y1="11.176" x2="4.318" y2="11.176" width="0.127"
layer="21"/>
<wire x1="4.318" y1="11.176" x2="4.318" y2="12.7" width="0.127"
layer="21"/>
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layer="21"/>
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layer="21"/>
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layer="21"/>
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layer="21"/>
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layer="21"/>
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layer="21"/>
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layer="21"/>
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layer="21"/>

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layer="21"/>
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<circle x="0" y="11.176" radius="4.191" width="0" layer="42"/>
<circle x="0" y="11.176" radius="4.191" width="0" layer="43"/>
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<pad name="3" x="2.54" y="-6.35" drill="1.1176" shape="long" rot="R90"/>
<text x="-3.81" y="5.207" size="1.778" layer="25"
ratio="10">>NAME</text>
<text x="-3.937" y="2.54" size="1.778" layer="27"
ratio="10">>VALUE</text>
<text x="-4.445" y="7.874" size="0.9906" layer="21"
ratio="12">A17,5mm</text>
<text x="-3.175" y="0" size="1.27" layer="51" ratio="10">1</text>
<text x="-0.635" y="0" size="1.27" layer="51" ratio="10">2</text>
<text x="1.905" y="0" size="1.27" layer="51" ratio="10">3</text>
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<rectangle x1="-2.921" y1="-4.699" x2="-2.159" y2="-4.064" layer="21"/>
<rectangle x1="-3.175" y1="-4.064" x2="-1.905" y2="-1.27" layer="21"/>
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<rectangle x1="1.905" y1="-4.064" x2="3.175" y2="-1.27" layer="21"/>
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<rectangle x1="2.159" y1="-6.604" x2="2.921" y2="-4.699" layer="51"/>
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</package>
</packages>
<packages3d>
<package3d name="TO220" urn="urn:adsk.eagle:package:28520/1" type="box"
library_version="6">
<description>TO 220 horizontal</description>
<packageinstances>
<packageinstance name="TO220"/>
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</package3d>
</packages3d>
</library>
<library name="74ttl-din" urn="urn:adsk.eagle:library:84">
<description>TTL Devices with DIN Symbols<p>
CadSoft and the author do not warrant that this library is free from error
or will meet your specific requirements.<p>
<author>Created by Holger Bettenbühl,
hol.bet.@rhein-main.net</author></description>
<packages>

<package name="DIL14" urn="urn:adsk.eagle:footprint:16136/1"
library_version="6">
<description>Dual In Line Package</description>
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layer="21"/>
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layer="21"/>
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layer="21" curve="-180"/>
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<pad name="6" x="5.08" y="-3.81" drill="0.8128" shape="long" rot="R90"/>
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<pad name="13" x="-5.08" y="3.81" drill="0.8128" shape="long" rot="R90"/>
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rot="R90">>NAME</text>
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ratio="10">>VALUE</text>
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type="model" library_version="6">
<description>Dual In Line Package</description>
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</package3d>
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</library>
</libraries>
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</attributes>
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</class>
</classes>
<designrules name="default *">
<description language="de">EAGLE Design Rules
<p>
Die Standard-Design-Rules sind so gewählt, dass sie für
die meisten Anwendungen passen. Sollte ihre Platine
besondere Anforderungen haben, treffen Sie die erforderlichen
Einstellungen hier und speichern die Design Rules unter
einem neuen Namen ab.</description>
<description language="en">EAGLE Design Rules
<p>
The default Design Rules have been set to cover
a wide range of applications. Your particular design
may have different requirements, so please make the
necessary adjustments and save your customized
design rules under a new name.</description>
<param name="layerSetup" value="(1*16)"/>
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0.035mm 0.035mm 0.035mm 0.035mm 0.035mm 0.035mm 0.035mm 0.035mm
0.035mm 0.035mm 0.035mm 0.035mm"/>
<param name="mtIsolate" value="1.5mm 0.15mm 0.2mm 0.15mm 0.2mm
0.15mm 0.2mm 0.15mm 0.2mm 0.15mm 0.2mm 0.15mm 0.2mm 0.15mm
0.2mm"/>
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<param name="mdWirePad" value="25mil"/>
<param name="mdWireVia" value="25mil"/>
<param name="mdPadPad" value="25mil"/>
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<param name="mdViaVia" value="25mil"/>
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<param name="mdSmdVia" value="6mil"/>
<param name="mdSmdSmd" value="6mil"/>
<param name="mdViaViaSameLayer" value="6mil"/>
<param name="mnLayersViaInSmd" value="2"/>
<param name="mdCopperDimension" value="40mil"/>
<param name="mdDrill" value="6mil"/>
<param name="mdSmdStop" value="0mil"/>
<param name="msWidth" value="25mil"/>
<param name="msDrill" value="0.35mm"/>
<param name="msMicroVia" value="9.99mm"/>
<param name="msBlindViaRatio" value="0.5"/>

<param name="rvPadTop" value="0.25"/>
<param name="rvPadInner" value="0.25"/>
<param name="rvPadBottom" value="0.25"/>
<param name="rvViaOuter" value="0.25"/>
<param name="rvViaInner" value="0.25"/>
<param name="rvMicroViaOuter" value="0.25"/>
<param name="rvMicroViaInner" value="0.25"/>
<param name="rlMinPadTop" value="10mil"/>
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<param name="rlMinPadInner" value="10mil"/>
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<param name="rlMinPadBottom" value="10mil"/>
<param name="rlMaxPadBottom" value="20mil"/>
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<param name="rlMaxViaInner" value="20mil"/>
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<param name="rlMaxMicroViaOuter" value="20mil"/>
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<param name="rlMaxMicroViaInner" value="20mil"/>
<param name="psTop" value="-1"/>
<param name="psBottom" value="-1"/>
<param name="psFirst" value="-1"/>
<param name="psElongationLong" value="100"/>
<param name="psElongationOffset" value="100"/>
<param name="mvStopFrame" value="1"/>
<param name="mvCreamFrame" value="0"/>
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<param name="mlMaxStopFrame" value="4mil"/>
<param name="mlMinCreamFrame" value="0mil"/>
<param name="mlMaxCreamFrame" value="0mil"/>
<param name="mlViaStopLimit" value="0mil"/>
<param name="srRoundness" value="0"/>
<param name="srMinRoundness" value="0mil"/>
<param name="srMaxRoundness" value="0mil"/>
<param name="slThermalIsolate" value="10mil"/>
<param name="slThermalsForVias" value="0"/>
<param name="dpMaxLengthDifference" value="10mm"/>
<param name="dpGapFactor" value="2.5"/>
<param name="checkAngle" value="0"/>
<param name="checkFont" value="1"/>
<param name="checkRestrict" value="1"/>
<param name="checkStop" value="0"/>
<param name="checkValues" value="0"/>
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<param name="checkWireStubs" value="1"/>

<param name="checkPolygonWidth" value="0"/>
<param name="useDiameter" value="13"/>
<param name="maxErrors" value="50"/>
</designrules>
<autorouter>
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<param name="RoutingGrid" value="50mil"/>
<param name="AutoGrid" value="1"/>
<param name="Efforts" value="0"/>
<param name="TopRouterVariant" value="1"/>
<param name="tpViaShape" value="round"/>
<param name="PrefDir.1" value="a"/>
<param name="PrefDir.2" value="0"/>
<param name="PrefDir.3" value="0"/>
<param name="PrefDir.4" value="0"/>
<param name="PrefDir.5" value="0"/>
<param name="PrefDir.6" value="0"/>
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<param name="PrefDir.11" value="0"/>
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<param name="PrefDir.13" value="0"/>
<param name="PrefDir.14" value="0"/>
<param name="PrefDir.15" value="0"/>
<param name="PrefDir.16" value="a"/>
<param name="cfVia" value="8"/>
<param name="cfNonPref" value="5"/>
<param name="cfChangeDir" value="2"/>
<param name="cfOrthStep" value="2"/>
<param name="cfDiagStep" value="3"/>
<param name="cfExtdStep" value="0"/>
<param name="cfBonusStep" value="1"/>
<param name="cfMalusStep" value="1"/>
<param name="cfPadImpact" value="4"/>
<param name="cfSmdImpact" value="4"/>
<param name="cfBusImpact" value="0"/>
<param name="cfHugging" value="3"/>
<param name="cfAvoid" value="4"/>
<param name="cfPolygon" value="10"/>
<param name="cfBase.1" value="0"/>
<param name="cfBase.2" value="1"/>
<param name="cfBase.3" value="1"/>
<param name="cfBase.4" value="1"/>
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<param name="cfBase.15" value="1"/>
<param name="cfBase.16" value="0"/>
<param name="mnVias" value="20"/>
<param name="mnSegments" value="9999"/>
<param name="mnExtdSteps" value="9999"/>
<param name="mnRipupLevel" value="10"/>
<param name="mnRipupSteps" value="100"/>
<param name="mnRipupTotal" value="100"/>
</pass>
<pass name="Follow-me" refer="Default" active="yes">
</pass>
<pass name="Busses" refer="Default" active="yes">
<param name="cfNonPref" value="4"/>
<param name="cfBusImpact" value="4"/>
<param name="cfHugging" value="0"/>
<param name="mnVias" value="0"/>
</pass>
<pass name="Route" refer="Default" active="yes">
</pass>
<pass name="Optimize1" refer="Default" active="yes">
<param name="cfVia" value="99"/>
<param name="cfExtdStep" value="10"/>
<param name="cfHugging" value="1"/>
<param name="mnExtdSteps" value="1"/>
<param name="mnRipupLevel" value="0"/>
</pass>
<pass name="Optimize2" refer="Optimize1" active="yes">
<param name="cfNonPref" value="0"/>
<param name="cfChangeDir" value="6"/>
<param name="cfExtdStep" value="0"/>
<param name="cfBonusStep" value="2"/>
<param name="cfMalusStep" value="2"/>
<param name="cfPadImpact" value="2"/>
<param name="cfSmdImpact" value="2"/>
<param name="cfHugging" value="0"/>
</pass>
<pass name="Optimize3" refer="Optimize2" active="yes">
<param name="cfChangeDir" value="8"/>
<param name="cfPadImpact" value="0"/>

<param name="cfSmdImpact" value="0"/>
</pass>
<pass name="Optimize4" refer="Optimize3" active="yes">
<param name="cfChangeDir" value="25"/>
</pass>
</autorouter>
<elements>
<element name="C1" library="rcl" library_urn="urn:adsk.eagle:library:334"
package="C025-024X044" package3d_urn="urn:adsk.eagle:package:23630/1"
value="100u" x="23.58" y="61.66" smashed="yes" rot="R180">
<attribute name="NAME" x="25.358" y="60.263" size="1.27" layer="25"
ratio="10" rot="R180"/>
<attribute name="POPULARITY" value="56" x="-34.84" y="135.32"
size="1.778" layer="27" rot="R180" display="off"/>
<attribute name="SPICEPREFIX" value="C" x="-34.84" y="135.32" size="1.778"
layer="27" rot="R180" display="off"/>
<attribute name="VALUE" x="25.358" y="64.327" size="1.27" layer="27"
ratio="10" rot="R180"/>
</element>
<element name="C2" library="rcl" library_urn="urn:adsk.eagle:library:334"
package="C025-024X044" package3d_urn="urn:adsk.eagle:package:23630/1"
value="100u" x="23.5" y="57.66" smashed="yes" rot="MR0">
<attribute name="NAME" x="25.278" y="59.057" size="1.27" layer="26"
ratio="10" rot="MR0"/>
<attribute name="POPULARITY" value="56" x="-40" y="-16" size="1.778"
layer="28" rot="MR0" display="off"/>
<attribute name="SPICEPREFIX" value="C" x="-40" y="-16" size="1.778"
layer="28" rot="MR0" display="off"/>
<attribute name="VALUE" x="25.278" y="54.993" size="1.27" layer="28"
ratio="10" rot="MR0"/>
</element>
<element name="C3" library="rcl" library_urn="urn:adsk.eagle:library:334"
package="C025-024X044" package3d_urn="urn:adsk.eagle:package:23630/1"
value="100u" x="10.34" y="63.42" smashed="yes" rot="R180">
<attribute name="NAME" x="12.118" y="62.023" size="1.27" layer="25"
ratio="10" rot="R180"/>
<attribute name="POPULARITY" value="56" x="-58.24" y="137.08"
size="1.778" layer="27" rot="R180" display="off"/>
<attribute name="SPICEPREFIX" value="C" x="-58.24" y="137.08" size="1.778"
layer="27" rot="R180" display="off"/>
<attribute name="VALUE" x="12.118" y="66.087" size="1.27" layer="27"
ratio="10" rot="R180"/>
</element>
<element name="C5" library="rcl" library_urn="urn:adsk.eagle:library:334"
package="C025-024X044" package3d_urn="urn:adsk.eagle:package:23630/1"
value="0.1p" x="3.34" y="61.66" smashed="yes">

<attribute name="NAME" x="1.562" y="63.057" size="1.27" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="56" x="77" y="-12" size="1.778"
layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="C" x="77" y="-12" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="1.562" y="58.993" size="1.27" layer="27"
ratio="10"/>
</element>
<element name="D1" library="diode" library_urn="urn:adsk.eagle:library:210"
package="DO41-10" package3d_urn="urn:adsk.eagle:package:43336/1"
value="1N4004" x="7.17" y="67.66" smashed="yes" rot="R180">
<attribute name="NAME" x="9.202" y="66.009" size="1.27" layer="25"
ratio="10" rot="R180"/>
<attribute name="POPULARITY" value="82" x="-29.66" y="141.32"
size="1.778" layer="27" rot="R180" display="off"/>
<attribute name="VALUE" x="9.202" y="70.454" size="1.27" layer="27"
ratio="10" rot="R180"/>
</element>
<element name="D2" library="diode" library_urn="urn:adsk.eagle:library:210"
package="DO41-10" package3d_urn="urn:adsk.eagle:package:43336/1"
value="1N4004" x="20.47" y="67.66" smashed="yes">
<attribute name="NAME" x="18.438" y="69.311" size="1.27" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="82" x="70" y="-6" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="18.438" y="64.866" size="1.27" layer="27"
ratio="10"/>
</element>
<element name="IC1" library="st-microelectronics"
library_urn="urn:adsk.eagle:library:368" package="DIL-08"
package3d_urn="urn:adsk.eagle:package:26829/1" value="NE555" x="11.31"
y="35.61" smashed="yes" rot="R270">
<attribute name="MF" value="Arrow Electronics" x="-43.3" y="-24.08"
size="1.778" layer="27" rot="R270" display="off"/>
<attribute name="MPN" value="NE555N" x="-43.3" y="-24.08" size="1.778"
layer="27" rot="R270" display="off"/>
<attribute name="OC_FARNELL" value="1467742" x="-43.3" y="-24.08"
size="1.778" layer="27" rot="R270" display="off"/>
<attribute name="OC_NEWARK" value="89K1486" x="-43.3" y="-24.08"
size="1.778" layer="27" rot="R270" display="off"/>
<attribute name="POPULARITY" value="24" x="-43.3" y="-24.08" size="1.778"
layer="27" rot="R270" display="off"/>
<attribute name="VALUE" x="10.675" y="39.166" size="1.27" layer="27"
ratio="10" rot="R270"/>
</element>

<element name="IC2" library="st-microelectronics"
library_urn="urn:adsk.eagle:library:368" package="DIL-08"
package3d_urn="urn:adsk.eagle:package:26829/1" value="NE555" x="11.61"
y="47.61" smashed="yes" rot="R270">
<attribute name="MF" value="Arrow Electronics" x="-43" y="-24.78"
size="1.778" layer="27" rot="R270" display="off"/>
<attribute name="MPN" value="NE555N" x="-43" y="-24.78" size="1.778"
layer="27" rot="R270" display="off"/>
<attribute name="NAME" x="8.689" y="52.944" size="1.27" layer="25"
ratio="10"/>
<attribute name="OC_FARNELL" value="1467742" x="-43" y="-24.78"
size="1.778" layer="27" rot="R270" display="off"/>
<attribute name="OC_NEWARK" value="89K1486" x="-43" y="-24.78"
size="1.778" layer="27" rot="R270" display="off"/>
<attribute name="POPULARITY" value="24" x="-43" y="-24.78" size="1.778"
layer="27" rot="R270" display="off"/>
<attribute name="VALUE" x="10.975" y="51.166" size="1.27" layer="27"
ratio="10" rot="R270"/>
</element>
<element name="IC4" library="linear" library_urn="urn:adsk.eagle:library:262"
package="TO220V" package3d_urn="urn:adsk.eagle:package:16417/2"
value="7805TV" x="17.95" y="76.58" smashed="yes">
<attribute name="NAME" x="12.87" y="70.5348" size="1.27" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="57" x="37" y="8" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="12.87" y="68.96" size="1.27" layer="27"
ratio="10"/>
</element>
<element name="J1" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="53.79" y="8.5" smashed="yes">
<attribute name="NAME" x="49.98" y="12.31" size="1.27" layer="25"/>
</element>
<element name="J2" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="53.9" y="15.5" smashed="yes">
<attribute name="NAME" x="50.09" y="19.31" size="1.27" layer="25"/>
</element>
<element name="J3" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="45.01" y="8.5" smashed="yes">
<attribute name="NAME" x="41.2" y="12.31" size="1.27" layer="25"/>
</element>
<element name="J4" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="19.12" y="16.5" smashed="yes" rot="R270">

<attribute name="NAME" x="22.93" y="20.31" size="1.27" layer="25"
rot="R270"/>
</element>
<element name="J5" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="46.23" y="28.5" smashed="yes" rot="R270">
<attribute name="NAME" x="50.04" y="32.31" size="1.27" layer="25"
rot="R270"/>
</element>
<element name="J6" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="45.34" y="15.5" smashed="yes">
<attribute name="NAME" x="41.53" y="19.31" size="1.27" layer="25"/>
</element>
<element name="J7" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="30.49" y="73.39" smashed="yes">
<attribute name="NAME" x="26.68" y="77.2" size="1.27" layer="25"/>
</element>
<element name="J8" library="01-ITS Robotics" package="B2B-XH-A"
package3d_urn="urn:adsk.eagle:package:36056282/2" value="B2B-XH-A"
x="5.6" y="73.39" smashed="yes">
<attribute name="NAME" x="1.79" y="77.2" size="1.27" layer="25"/>
</element>
<element name="Q10" library="transistor-npn"
library_urn="urn:adsk.eagle:library:398" package="TO220"
package3d_urn="urn:adsk.eagle:package:28520/1" value="TIP31C" x="12.09"
y="22.89" smashed="yes">
<attribute name="NAME" x="8.28" y="28.097" size="1.778" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="1" x="54" y="14" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="8.153" y="25.43" size="1.778" layer="27"
ratio="10"/>
</element>
<element name="Q13" library="transistor-npn"
library_urn="urn:adsk.eagle:library:398" package="TO220"
package3d_urn="urn:adsk.eagle:package:28520/1" value="TIP31C" x="11.66"
y="30.89" smashed="yes" rot="MR0">
<attribute name="POPULARITY" value="1" x="-41.68" y="22" size="1.778"
layer="28" rot="MR0" display="off"/>
<attribute name="VALUE" x="15.597" y="33.43" size="1.778" layer="28"
ratio="10" rot="MR0"/>
</element>
<element name="Q15" library="transistor-npn"
library_urn="urn:adsk.eagle:library:398" package="TO220"

package3d_urn="urn:adsk.eagle:package:28520/1" value="TIP31C" x="39.23"
y="78.89" smashed="yes" rot="MR0">
<attribute name="NAME" x="43.04" y="84.097" size="1.778" layer="26"
ratio="10" rot="MR0"/>
<attribute name="POPULARITY" value="1" x="-25.54" y="70" size="1.778"
layer="28" rot="MR0" display="off"/>
<attribute name="VALUE" x="43.167" y="81.43" size="1.778" layer="28"
ratio="10" rot="MR0"/>
</element>
<element name="Q16" library="transistor-npn"
library_urn="urn:adsk.eagle:library:398" package="TO220"
package3d_urn="urn:adsk.eagle:package:28520/1" value="TIP31C" x="27.95"
y="21.02" smashed="yes">
<attribute name="NAME" x="24.14" y="26.227" size="1.778" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="1" x="47" y="-12" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="24.013" y="23.56" size="1.778" layer="27"
ratio="10"/>
</element>
<element name="Q8" library="transistor-npn"
library_urn="urn:adsk.eagle:library:398" package="TO220"
package3d_urn="urn:adsk.eagle:package:28520/1" value="TIP31C" x="11.95"
y="62.89" smashed="yes">
<attribute name="NAME" x="8.14" y="68.097" size="1.778" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="1" x="31" y="54" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="8.013" y="65.43" size="1.778" layer="27"
ratio="10"/>
</element>
<element name="Q9" library="transistor-npn"
library_urn="urn:adsk.eagle:library:398" package="TO220"
package3d_urn="urn:adsk.eagle:package:28520/1" value="TIP31C" x="10.52"
y="13.89" smashed="yes">
<attribute name="NAME" x="6.71" y="19.097" size="1.778" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="1" x="41" y="5" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="6.583" y="16.43" size="1.778" layer="27"
ratio="10"/>
</element>
<element name="R1" library="rcl" library_urn="urn:adsk.eagle:library:334"
package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2"
value="2k" x="32.95" y="62.01" smashed="yes">
<attribute name="NAME" x="29.902" y="63.534" size="1.27" layer="25"
ratio="10"/>

<attribute name="POPULARITY" value="81" x="52" y="-18" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="52" y="-18" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="30.6894" y="61.375" size="1.27" layer="27" ratio="10"/>
</element>
<element name="R11" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="10k" x="33.25" y="69.09" smashed="yes">
<attribute name="NAME" x="30.202" y="70.614" size="1.27" layer="25" ratio="10"/>
<attribute name="POPULARITY" value="81" x="65" y="-16" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="65" y="-16" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="30.9894" y="68.455" size="1.27" layer="27" ratio="10"/>
</element>
<element name="R13" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="10k" x="32.55" y="66.09" smashed="yes">
<attribute name="NAME" x="29.502" y="67.614" size="1.27" layer="25" ratio="10"/>
<attribute name="POPULARITY" value="81" x="77" y="-19" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="77" y="-19" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="30.2894" y="65.455" size="1.27" layer="27" ratio="10"/>
</element>
<element name="R2" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="2k" x="33.25" y="55.01" smashed="yes">
<attribute name="POPULARITY" value="81" x="65" y="-25" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="65" y="-25" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="30.9894" y="54.375" size="1.27" layer="27" ratio="10"/>
</element>
<element name="R3" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="10k" x="33.55" y="52.01" smashed="yes" rot="MR0">
<attribute name="NAME" x="36.598" y="53.534" size="1.27" layer="26" ratio="10" rot="MR0"/>

<attribute name="POPULARITY" value="81" x="-10.9" y="-28" size="1.778" layer="28" rot="MR0" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="-10.9" y="-28" size="1.778" layer="28" rot="MR0" display="off"/>
<attribute name="VALUE" x="35.8106" y="51.375" size="1.27" layer="28" ratio="10" rot="MR0"/>
</element>
<element name="R4" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="10k" x="23.85" y="7.01" smashed="yes">
<attribute name="NAME" x="20.802" y="8.534" size="1.27" layer="25" ratio="10"/>
<attribute name="POPULARITY" value="81" x="81" y="-73" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="81" y="-73" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="21.5894" y="6.375" size="1.27" layer="27" ratio="10"/>
</element>
<element name="R5" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="10k" x="23.15" y="10.01" smashed="yes">
<attribute name="NAME" x="20.102" y="11.534" size="1.27" layer="25" ratio="10"/>
<attribute name="POPULARITY" value="81" x="93" y="-70" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="93" y="-70" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="20.8894" y="9.375" size="1.27" layer="27" ratio="10"/>
</element>
<element name="R9" library="rcl" library_urn="urn:adsk.eagle:library:334" package="0207/10" package3d_urn="urn:adsk.eagle:package:23491/2" value="10k" x="31.95" y="59.09" smashed="yes">
<attribute name="NAME" x="28.902" y="60.614" size="1.27" layer="25" ratio="10"/>
<attribute name="POPULARITY" value="81" x="51" y="-26" size="1.778" layer="27" display="off"/>
<attribute name="SPICEPREFIX" value="R" x="51" y="-26" size="1.778" layer="27" display="off"/>
<attribute name="VALUE" x="29.6894" y="58.455" size="1.27" layer="27" ratio="10"/>
</element>
<element name="V1" library="74ttl-din" library_urn="urn:adsk.eagle:library:84" package="DIL14" package3d_urn="urn:adsk.eagle:package:16407/2" value="7432N" x="52.71" y="59.48" smashed="yes" rot="R270">

<attribute name="NAME" x="49.662" y="68.751" size="1.27" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="0" x="22.23" y="25.19" size="1.778"
layer="27" rot="R270" display="off"/>
<attribute name="VALUE" x="52.075" y="66.211" size="1.27" layer="27"
ratio="10" rot="R270"/>
</element>
<element name="V2" library="74ttl-din" library_urn="urn:adsk.eagle:library:84"
package="DIL14" package3d_urn="urn:adsk.eagle:package:16407/2"
value="7408N" x="53.39" y="40.48" smashed="yes" rot="R270">
<attribute name="NAME" x="50.342" y="49.751" size="1.27" layer="25"
ratio="10"/>
<attribute name="POPULARITY" value="0" x="22.91" y="-14.13" size="1.778"
layer="27" rot="R270" display="off"/>
<attribute name="VALUE" x="52.755" y="47.211" size="1.27" layer="27"
ratio="10" rot="R270"/>
</element>
<element name="V3" library="74ttl-din" library_urn="urn:adsk.eagle:library:84"
package="DIL14" package3d_urn="urn:adsk.eagle:package:16407/2"
value="7408N" x="33.14" y="39.61" smashed="yes">
<attribute name="NAME" x="23.869" y="36.562" size="1.27" layer="25"
ratio="10" rot="R90"/>
<attribute name="POPULARITY" value="0" x="56" y="-15" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="26.409" y="38.975" size="1.27" layer="27"
ratio="10"/>
</element>
<element name="V4" library="74ttl-din" library_urn="urn:adsk.eagle:library:84"
package="DIL14" package3d_urn="urn:adsk.eagle:package:16407/2"
value="7432N" x="32.82" y="24.61" smashed="yes">
<attribute name="NAME" x="23.549" y="21.562" size="1.27" layer="25"
ratio="10" rot="R90"/>
<attribute name="POPULARITY" value="0" x="76" y="-30" size="1.778"
layer="27" display="off"/>
<attribute name="VALUE" x="26.089" y="23.975" size="1.27" layer="27"
ratio="10"/>
</element>
</elements>
<signals>
<signal name="+UB">
<contactref element="V1" pad="14"/>
<contactref element="V2" pad="14"/>
<contactref element="V3" pad="14"/>
<contactref element="V4" pad="14"/>
<wire x1="59.5012" y1="66.10709375" x2="58.50829375" y2="67.1"
width="1.016" layer="1"/>

<wire x1="56.52" y1="67.1" x2="58.50829375" y2="67.1" width="1.016" layer="1"/>
<wire x1="59.5012" y1="49.4012" x2="58.2" y2="48.1" width="1.016" layer="1"/>
<wire x1="58.2" y1="48.1" x2="57.2" y2="48.1" width="1.016" layer="1"/>
<wire x1="59.5012" y1="66.10709375" x2="59.5012" y2="49.4012" width="1.016" layer="1"/>
<wire x1="25.52" y1="43.42" x2="25.52" y2="44.40829375" width="1.016" layer="16"/>
<wire x1="27.51290625" y1="46.4012" x2="25.52" y2="44.40829375" width="1.016" layer="16"/>
<wire x1="27.51290625" y1="46.4012" x2="36.4012" y2="46.4012" width="1.016" layer="16"/>
<wire x1="36.4012" y1="46.4012" x2="39.1684" y2="49.1684" width="1.016" layer="16"/>
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<contactref element="V2" pad="7"/>
<contactref element="V3" pad="7"/>
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<wire x1="48.12829375" y1="32.87170625" x2="49.58" y2="32.87170625" width="1.016" layer="16"/>
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<contactref element="C3" pad="2"/>
<contactref element="IC4" pad="2"/>
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<contactref element="J8" pad="2"/>
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<polygon width="1.016" layer="16">
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</polygon>
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<contactref element="R13" pad="1"/>
<contactref element="Q16" pad="3"/>
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<contactref element="J6" pad="2"/>

<contactref element="J1" pad="2"/>
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extent="1-1"/>
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extent="1-1"/>
<wire x1="17.95" y1="74.04" x2="6.87" y2="73.39" width="0" layer="19"
extent="1-1"/>
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extent="1-1"/>
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<signal name="VCC">
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<contactref element="IC1" pad="8"/>
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<contactref element="R3" pad="1"/>
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<contactref element="V2" pad="2"/>
<contactref element="V2" pad="13"/>
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layer="1"/>
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layer="1"/>

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<wire x1="38.63" y1="47.63" x2="38.63" y2="51" width="1.016" layer="1"/>
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layer="16"/>
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layer="16"/>
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layer="16"/>
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layer="16"/>
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layer="16"/>

<wire x1="39.345" y1="72.655" x2="39.345" y2="70.655" width="1.016" layer="16"/>
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<wire x1="37" y1="77" x2="39.345" y2="74.655" width="1.016" layer="16"/>
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<wire x1="8.8" y1="43.8" x2="7.8" y2="43.8" width="1.016" layer="16"/>
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layer="16"/>
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layer="16"/>
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layer="1"/>
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<signal name="T1">
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<contactref element="Q9" pad="2"/>
<wire x1="18.77" y1="7.01" x2="17.77" y2="7.01" width="1.016" layer="16"/>
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<wire x1="17.77" y1="7.01" x2="16" y2="8.78" width="1.016" layer="16"/>
<wire x1="16" y1="10" x2="15" y2="11" width="1.016" layer="16"/>
<wire x1="15" y1="11" x2="11.98" y2="11" width="1.016" layer="16"/>
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<signal name="N$3">
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<contactref element="IC1" pad="7"/>
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<wire x1="24.85" y1="61.66" x2="25.2" y2="62.01" width="1.016"
layer="16"/>
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layer="16"/>
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width="1.016" layer="16"/>
<wire x1="17.280696875" y1="37.280696875" x2="15.520696875"
y2="37.280696875" width="1.016" layer="16"/>
<wire x1="21" y1="60" x2="18" y2="57" width="1.016" layer="16"/>
<wire x1="15.12" y1="36.88" x2="15.12" y2="34.12" width="1.016"
layer="16"/>
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width="0" layer="19" extent="16-16"/>
<wire x1="15.12" y1="34.34" x2="15" y2="34" width="0" layer="19"
extent="16-16"/>
</signal>
<signal name="N$8">
<contactref element="R2" pad="1"/>
<contactref element="IC2" pad="6"/>
<contactref element="IC2" pad="7"/>
<contactref element="C2" pad="1"/>
<wire x1="24.77" y1="57.66" x2="25" y2="57.43" width="1.016" layer="16"/>
<wire x1="25" y1="57.43" x2="25" y2="56" width="1.016" layer="16"/>
<wire x1="25" y1="56" x2="25.99" y2="55.01" width="1.016" layer="16"/>
<wire x1="25.99" y1="55.01" x2="28.17" y2="55.01" width="1.016"
layer="16"/>
<wire x1="24.77" y1="57.66" x2="23.77" y2="56.66" width="1.016"
layer="1"/>
<wire x1="15.42" y1="48.88" x2="15.42" y2="46.34" width="1.016"
layer="1"/>
<wire x1="15.42" y1="48.88" x2="15.54" y2="49" width="1.016" layer="1"/>
<wire x1="23.77" y1="51.77" x2="23.77" y2="56.66" width="1.016"
layer="1"/>
<wire x1="15.54" y1="49" x2="21" y2="49" width="1.016" layer="1"/>
<wire x1="21" y1="49" x2="23.77" y2="51.77" width="1.016" layer="1"/>
</signal>
<signal name="HB">
<contactref element="Q8" pad="1"/>
<contactref element="J1" pad="1"/>

<wire x1="7.54" y1="56.54" x2="9.41" y2="56.54" width="1.016"
layer="16"/>
<wire x1="7.54" y1="56.54" x2="5" y2="54" width="1.016" layer="16"/>
<wire x1="52.52" y1="8.5" x2="50.57895" y2="8.5" width="1.016"
layer="16"/>
<wire x1="50.57895" y1="8.5" x2="43.039475" y2="0.960525" width="1.016"
layer="16"/>
<wire x1="5" y1="43.514475" x2="3.022" y2="41.536475" width="1.016"
layer="16"/>
<wire x1="3.022" y1="41.536475" x2="3.022" y2="41.022" width="1.016"
layer="16"/>
<wire x1="3.022" y1="41.022" x2="3" y2="41" width="1.016" layer="16"/>
<wire x1="3" y1="41" x2="3" y2="40.16684375" width="1.016" layer="16"/>
<wire x1="-1.1148" y1="36.05204375" x2="-1.1148" y2="19.600325"
width="1.016" layer="16"/>
<wire x1="-1.1148" y1="19.600325" x2="1.444" y2="17.041525"
width="1.016" layer="16"/>
<wire x1="1.444" y1="4.041525" x2="4.525" y2="0.960525" width="1.016"
layer="16"/>
<wire x1="4.525" y1="0.960525" x2="43.039475" y2="0.960525"
width="1.016" layer="16"/>
<wire x1="5" y1="54" x2="5" y2="43.514475" width="1.016" layer="16"/>
<wire x1="3" y1="40.16684375" x2="-1.1148" y2="36.05204375"
width="1.016" layer="16"/>
<wire x1="1.444" y1="17.041525" x2="1.444" y2="4.041525" width="1.016"
layer="16"/>
</signal>
<signal name="OUT_HB">
<contactref element="R11" pad="2"/>
<contactref element="Q8" pad="3"/>
<contactref element="V1" pad="2"/>
<wire x1="38.33" y1="69.09" x2="42.91" y2="69.09" width="1.016"
layer="1"/>
<wire x1="47.44" y1="64.56" x2="48.9" y2="64.56" width="1.016"
layer="1"/>
<wire x1="42.91" y1="69.09" x2="47.44" y2="64.56" width="1.016"
layer="1"/>
<wire x1="29.01709375" y1="63.7692" x2="29.24789375" y2="64"
width="1.016" layer="16"/>
<wire x1="14.49" y1="56.54" x2="21.7192" y2="63.7692" width="1.016"
layer="16"/>
<wire x1="21.7192" y1="63.7692" x2="29.01709375" y2="63.7692"
width="1.016" layer="16"/>
<wire x1="37.57" y1="68.33" x2="38.33" y2="69.09" width="1.016"
layer="16"/>
<wire x1="37.57" y1="68.33" x2="36.33" y2="68.33" width="1.016"
layer="16"/>

<wire x1="29.24789375" y1="64" x2="32" y2="64" width="1.016"
layer="16"/>
<wire x1="32" y1="64" x2="36.33" y2="68.33" width="1.016" layer="16"/>
</signal>
<signal name="SIG_TH">
<contactref element="J4" pad="1"/>
<contactref element="Q13" pad="1"/>
<wire x1="19.073034375" y1="17.926965625" x2="19.12" y2="17.77"
width="1.016" layer="16"/>
<wire x1="14.2" y1="24.54" x2="14.2" y2="22.8" width="1.016" layer="16"/>
<wire x1="16" y1="21" x2="18" y2="21" width="1.016" layer="16"/>
<wire x1="18" y1="21" x2="19.073034375" y2="19.926965625"
width="1.016" layer="16"/>
<wire x1="19.073034375" y1="19.926965625" x2="19.073034375"
y2="17.926965625" width="1.016" layer="16"/>
<wire x1="14.2" y1="22.8" x2="16" y2="21" width="1.016" layer="16"/>
</signal>
<signal name="TH">
<contactref element="J2" pad="1"/>
<contactref element="Q15" pad="1"/>
<wire x1="52.63" y1="15.5" x2="52.63" y2="16.63" width="1.016"
layer="16"/>
<wire x1="52.63" y1="16.63" x2="54" y2="18" width="1.016" layer="16"/>
<wire x1="54" y1="18" x2="57" y2="18" width="1.016" layer="16"/>
<wire x1="57" y1="18" x2="62" y2="23" width="1.016" layer="16"/>
<wire x1="62" y1="23" x2="62" y2="70" width="1.016" layer="16"/>
<wire x1="62" y1="70" x2="57.46" y2="74.54" width="1.016" layer="16"/>
<wire x1="57.46" y1="74.54" x2="43.77" y2="74.54" width="1.016"
layer="16"/>
<wire x1="43.77" y1="74.54" x2="41.77" y2="72.54" width="1.016"
layer="16"/>
</signal>
<signal name="SIG_HB">
<contactref element="J3" pad="1"/>
<contactref element="Q16" pad="1"/>
<wire x1="43.74" y1="8.5" x2="43.74" y2="5.74" width="1.016" layer="1"/>
<wire x1="43" y1="5" x2="25" y2="5" width="1.016" layer="1"/>
<wire x1="25" y1="5" x2="23" y2="7" width="1.016" layer="1"/>
<wire x1="25.41" y1="14.67" x2="23" y2="12.26" width="1.016" layer="1"/>
<wire x1="23" y1="12.26" x2="23" y2="7" width="1.016" layer="1"/>
<wire x1="43.74" y1="5.74" x2="43" y2="5" width="1.016" layer="1"/>
</signal>
<signal name="OUT_TH">
<contactref element="Q15" pad="3"/>
<contactref element="R13" pad="2"/>
<contactref element="V1" pad="5"/>

<wire x1="37.63" y1="66.09" x2="39.75" y2="66.09" width="1.016"
layer="1"/>
<wire x1="37.63" y1="66.09" x2="35.91" y2="66.09" width="1.016"
layer="1"/>
<wire x1="35.91" y1="66.09" x2="35" y2="67" width="1.016" layer="1"/>
<wire x1="35" y1="67" x2="35" y2="68.85" width="1.016" layer="1"/>
<wire x1="36.69" y1="70.54" x2="36.69" y2="72.54" width="1.016"
layer="1"/>
<wire x1="36.69" y1="70.54" x2="35" y2="68.85" width="1.016" layer="1"/>
<wire x1="39.75" y1="66.09" x2="45" y2="60.84" width="1.016" layer="1"/>
<wire x1="45" y1="60.84" x2="45" y2="59" width="1.016" layer="1"/>
<wire x1="45" y1="59" x2="47.06" y2="56.94" width="1.016" layer="1"/>
<wire x1="47.06" y1="56.94" x2="48.9" y2="56.94" width="1.016"
layer="1"/>
</signal>
<signal name="OUT_S_TH">
<contactref element="Q13" pad="2"/>
<contactref element="R9" pad="1"/>
<contactref element="IC2" pad="2"/>
<contactref element="V4" pad="2"/>
<wire x1="26" y1="50.65236875" x2="26" y2="56" width="1.016" layer="1"/>
<wire x1="20.8316" y1="45.48396875" x2="26" y2="50.65236875"
width="1.016" layer="1"/>
<wire x1="7.8" y1="48.88" x2="6.81170625" y2="48.88" width="1.016"
layer="1"/>
<wire x1="6.81170625" y1="48.88" x2="4.5188" y2="46.58709375"
width="1.016" layer="1"/>
<wire x1="4.5188" y1="25.4812" x2="9" y2="21" width="1.016" layer="1"/>
<wire x1="9" y1="21" x2="10" y2="21" width="1.016" layer="1"/>
<wire x1="10" y1="21" x2="11" y2="21" width="1.016" layer="1"/>
<wire x1="11" y1="21" x2="12" y2="21" width="1.016" layer="1"/>
<wire x1="12" y1="21" x2="14" y2="21" width="1.016" layer="1"/>
<wire x1="14" y1="21" x2="17" y2="21" width="1.016" layer="1"/>
<wire x1="11.66" y1="24.54" x2="12" y2="24.2" width="1.016" layer="1"/>
<wire x1="12" y1="24.2" x2="12" y2="24" width="1.016" layer="16"/>
<wire x1="11.66" y1="22.66" x2="10" y2="21" width="1.016" layer="1"/>
<wire x1="11.66" y1="21.66" x2="11" y2="21" width="1.016" layer="1"/>
<wire x1="14" y1="21" x2="13.5" y2="21.5" width="1.016" layer="1"/>
<wire x1="13.5" y1="21.5" x2="12" y2="23" width="1.016" layer="1"/>
<wire x1="12" y1="24.2" x2="12" y2="23" width="1.016" layer="1"/>
<wire x1="13.5" y1="21.5" x2="12.5" y2="21.5" width="1.016" layer="1"/>
<wire x1="12" y1="21" x2="12.5" y2="21.5" width="1.016" layer="1"/>
<wire x1="27.74" y1="21.6993375" x2="27.74" y2="20.8" width="1.016"
layer="1"/>
<wire x1="4.5188" y1="46.58709375" x2="4.5188" y2="25.4812"
width="1.016" layer="1"/>
<via x="11.66" y="21.66" extent="1-16" drill="0.35"/>

<wire x1="12.5" y1="21.5" x2="12.5" y2="21.891" width="1.016" layer="1"/>
<wire x1="11.66" y1="21.66" x2="12.34" y2="21.66" width="1.016" layer="1"/>
<wire x1="12.34" y1="21.66" x2="12.5" y2="21.5" width="1.016" layer="1"/>
<wire x1="17" y1="21" x2="20.6608" y2="24.6608" width="1.016" layer="1"/>
<wire x1="20.6608" y1="24.6608" x2="20.8316" y2="24.8316" width="1.016" layer="1"/>
<wire x1="20.8316" y1="45.48396875" x2="20.8316" y2="26" width="1.016" layer="1"/>
<wire x1="20.8316" y1="24.8316" x2="20.8316" y2="26" width="1.016" layer="1"/>
<wire x1="27.74" y1="20.8" x2="27.74" y2="21.745525" width="1.016" layer="1"/>
<wire x1="27.74" y1="21.745525" x2="25.824725" y2="23.6608" width="1.016" layer="1"/>
<wire x1="25.824725" y1="23.6608" x2="23.1708" y2="23.6608" width="1.016" layer="1"/>
<wire x1="20.8316" y1="26" x2="22.1708" y2="24.6608" width="1.016" layer="1"/>
<wire x1="22.1708" y1="24.6608" x2="23.1708" y2="23.6608" width="1.016" layer="1"/>
<wire x1="22.1708" y1="24.6608" x2="20.6608" y2="24.6608" width="1.016" layer="1"/>
<wire x1="26" y1="56" x2="27" y2="57" width="1.016" layer="1"/>
<wire x1="27" y1="57" x2="27" y2="58.96" width="1.016" layer="1"/>
<wire x1="27" y1="58.96" x2="26.87" y2="59.09" width="1.016" layer="1"/>
<wire x1="11.66" y1="24.54" x2="12" y2="24.2" width="0" layer="19" extent="16-16"/>
</signal>
<signal name="OUT_S_HB">
<contactref element="R3" pad="2"/>
<contactref element="Q16" pad="2"/>
<contactref element="IC1" pad="2"/>
<contactref element="V1" pad="13"/>
<wire x1="59" y1="66" x2="57.56" y2="64.56" width="1.016" layer="16"/>
<wire x1="56.52" y1="64.56" x2="57.56" y2="64.56" width="1.016" layer="16"/>
<wire x1="59" y1="66" x2="59" y2="70" width="1.016" layer="16"/>
<wire x1="59" y1="70" x2="56.8316" y2="72.1684" width="1.016" layer="16"/>
<wire x1="45.51603125" y1="72.1684" x2="42.582" y2="69.23436875" width="1.016" layer="16"/>
<wire x1="42.582" y1="62.1074" x2="37.4746" y2="57" width="1.016" layer="16"/>
<wire x1="37.4746" y1="57" x2="33" y2="57" width="1.016" layer="16"/>
<wire x1="33" y1="57" x2="28.47" y2="52.47" width="1.016" layer="16"/>

<wire x1="28.47" y1="52.47" x2="28.47" y2="52.01" width="1.016"
layer="16"/>
<wire x1="56.8316" y1="72.1684" x2="45.51603125" y2="72.1684"
width="1.016" layer="16"/>
<wire x1="42.582" y1="69.23436875" x2="42.582" y2="62.1074"
width="1.016" layer="16"/>
<wire x1="28.47" y1="49.89829375" x2="28.47" y2="52.01" width="1.016"
layer="16"/>
<wire x1="21.8316" y1="43.25989375" x2="28.47" y2="49.89829375"
width="1.016" layer="16"/>
<wire x1="27.95" y1="14.67" x2="27.95" y2="15.67" width="1.016"
layer="16"/>
<wire x1="7.5" y1="36.88" x2="7.62" y2="37" width="1.016" layer="16"/>
<wire x1="7.62" y1="37" x2="8.37860625" y2="37" width="1.016"
layer="16"/>
<wire x1="27.95" y1="14.67" x2="27.95" y2="13.1184" width="1.016"
layer="16"/>
<wire x1="2.8316" y1="33.8316" x2="6" y2="37" width="1.016" layer="16"/>
<wire x1="6" y1="37" x2="7.62" y2="37" width="1.016" layer="16"/>
<wire x1="22.9932" y1="19.0068" x2="23.03074375" y2="19.0068"
width="1.016" layer="16"/>
<wire x1="23.03074375" y1="19.0068" x2="24.03754375" y2="18"
width="1.016" layer="16"/>
<wire x1="24.03754375" y1="18" x2="27" y2="18" width="1.016"
layer="16"/>
<wire x1="27" y1="18" x2="27.95" y2="17.05" width="1.016" layer="16"/>
<wire x1="27.95" y1="17.05" x2="27.95" y2="14.67" width="1.016"
layer="16"/>
<wire x1="21.8316" y1="43.25989375" x2="21.8316" y2="20.1684"
width="1.016" layer="16"/>
<wire x1="21.8316" y1="20.1684" x2="22.9932" y2="19.0068" width="1.016"
layer="16"/>
<wire x1="19.5522" y1="4.7206" x2="6.2794" y2="4.7206" width="1.016"
layer="16"/>
<wire x1="6.2794" y1="4.7206" x2="5" y2="6" width="1.016" layer="16"/>
<wire x1="5" y1="6" x2="5" y2="19" width="1.016" layer="16"/>
<wire x1="2.8316" y1="21.1684" x2="2.8316" y2="33.8316" width="1.016"
layer="16"/>
<wire x1="27.95" y1="13.1184" x2="19.5522" y2="4.7206" width="1.016"
layer="16"/>
<wire x1="5" y1="19" x2="2.8316" y2="21.1684" width="1.016" layer="16"/>
</signal>
<signal name="N$7">
<contactref element="Q9" pad="1"/>
<contactref element="IC1" pad="3"/>
<wire x1="7.5" y1="34.34" x2="6.34" y2="34.34" width="1.016" layer="16"/>
<wire x1="6.34" y1="34.34" x2="5" y2="33" width="1.016" layer="16"/>

<wire x1="5" y1="22" x2="7" y2="20" width="1.016" layer="16"/>
<wire x1="5" y1="33" x2="5" y2="22" width="1.016" layer="16"/>
<wire x1="7" y1="12" x2="8" y2="11" width="1.016" layer="16"/>
<wire x1="8" y1="11" x2="8" y2="7.56" width="1.016" layer="16"/>
<wire x1="8" y1="7.56" x2="7.98" y2="7.54" width="1.016" layer="16"/>
<wire x1="7" y1="20" x2="7" y2="12" width="1.016" layer="16"/>
</signal>
<signal name="N$1">
<contactref element="IC2" pad="3"/>
<contactref element="Q10" pad="1"/>
<wire x1="2.3504" y1="49.49869375" x2="6" y2="53.14829375"
width="1.016" layer="1"/>
<wire x1="6" y1="53.14829375" x2="9.85170625" y2="53.14829375"
width="1.016" layer="1"/>
<wire x1="9.85170625" y1="53.14829375" x2="11" y2="52" width="1.016"
layer="1"/>
<wire x1="11" y1="52" x2="11" y2="48" width="1.016" layer="1"/>
<wire x1="11" y1="48" x2="9.34" y2="46.34" width="1.016" layer="1"/>
<wire x1="9.34" y1="46.34" x2="7.8" y2="46.34" width="1.016" layer="1"/>
<wire x1="9.55" y1="16.54" x2="9.55" y2="17.79763125" width="1.016"
layer="1"/>
<wire x1="9.55" y1="17.79763125" x2="2.3504" y2="24.99723125"
width="1.016" layer="1"/>
<wire x1="2.3504" y1="24.99723125" x2="2.3504" y2="49.49869375"
width="1.016" layer="1"/>
</signal>
<signal name="T2">
<contactref element="R5" pad="1"/>
<contactref element="Q10" pad="2"/>
<wire x1="12.09" y1="16.54" x2="12.09" y2="13.91" width="1.016"
layer="16"/>
<wire x1="18.07" y1="11.99" x2="17.06" y2="13" width="1.016" layer="16"/>
<wire x1="18.07" y1="11.99" x2="18.07" y2="10.01" width="1.016"
layer="16"/>
<wire x1="12.09" y1="13.91" x2="13" y2="13" width="1.016" layer="16"/>
<wire x1="13" y1="13" x2="17.06" y2="13" width="1.016" layer="16"/>
</signal>
<signal name="N$2">
<contactref element="V2" pad="1"/>
<contactref element="V1" pad="3"/>
<wire x1="52" y1="59.92" x2="49.9" y2="62.02" width="1.016" layer="1"/>
<wire x1="48.9" y1="62.02" x2="49.9" y2="62.02" width="1.016" layer="1"/>
<wire x1="52" y1="48.52" x2="51.58" y2="48.1" width="1.016" layer="1"/>
<wire x1="51.58" y1="48.1" x2="49.58" y2="48.1" width="1.016" layer="1"/>
<wire x1="52" y1="59.92" x2="52" y2="48.52" width="1.016" layer="1"/>
</signal>
<signal name="N$4">

<contactref element="V2" pad="12"/>
<contactref element="V1" pad="11"/>
<wire x1="56.52" y1="59.48" x2="57.52" y2="59.48" width="1.016"
layer="16"/>
<wire x1="59.1812" y1="45.0012" x2="57.2" y2="43.02" width="1.016"
layer="16"/>
<wire x1="59.1812" y1="57.8188" x2="59.1812" y2="45.0012" width="1.016"
layer="16"/>
<wire x1="57.52" y1="59.48" x2="59.1812" y2="57.8188" width="1.016"
layer="16"/>
</signal>
<signal name="N$5">
<contactref element="V2" pad="4"/>
<contactref element="V1" pad="6"/>
<wire x1="49.58" y1="40.49170625" x2="49.58" y2="40.48" width="1.016"
layer="16"/>
<wire x1="48.9" y1="54.4" x2="48.9" y2="54.38829375" width="1.016"
layer="16"/>
<wire x1="48.9" y1="54.38829375" x2="46.9188" y2="52.40709375"
width="1.016" layer="16"/>
<wire x1="46.9188" y1="52.40709375" x2="46.9188" y2="43.15290625"
width="1.016" layer="16"/>
<wire x1="46.9188" y1="43.15290625" x2="49.58" y2="40.49170625"
width="1.016" layer="16"/>
</signal>
<signal name="N$6">
<contactref element="V3" pad="1"/>
<contactref element="V4" pad="3"/>
<wire x1="30.28" y1="20.8" x2="30.28" y2="21.72" width="1.016"
layer="1"/>
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layer="1"/>
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<signal name="L_HB">
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layer="1"/>

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layer="1"/>
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<wire x1="38.22" y1="43.42" x2="38.22" y2="45.22" width="1.016"
layer="16"/>
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<wire x1="42.582" y1="56.8026625" x2="46.9188" y2="61.1394625"
width="1.016" layer="16"/>
<wire x1="46.9188" y1="61.1394625" x2="46.9188" y2="65.9188"
width="1.016" layer="16"/>
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layer="16"/>
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<signal name="L_TH">
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<contactref element="V1" pad="4"/>
<contactref element="V3" pad="10"/>
<wire x1="48.9" y1="59.48" x2="47.91170625" y2="59.48" width="1.016"
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<wire x1="47.91170625" y1="59.48" x2="45" y2="56.56829375"
width="1.016" layer="16"/>
<wire x1="45" y1="56.56829375" x2="45" y2="41.2496" width="1.016"
layer="16"/>
<wire x1="45" y1="39.98" x2="49.58" y2="35.4" width="1.016" layer="16"/>
<wire x1="35.68" y1="43.42" x2="35.68" y2="42.43170625" width="1.016"
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width="1.016" layer="16"/>
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layer="16"/>
<wire x1="45" y1="40.4388" x2="44" y2="40.4388" width="1.016"
layer="16"/>
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layer="16"/>
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layer="16"/>
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layer="16"/>
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<signal name="L_S_TH">
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<wire x1="35.36" y1="25.36" x2="34" y2="24" width="1.016" layer="16"/>
<wire x1="34" y1="24" x2="27" y2="24" width="1.016" layer="16"/>
<wire x1="35.36" y1="28.42" x2="35.36" y2="25.36" width="1.016"
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<wire x1="32" y1="32" x2="34" y2="32" width="1.016" layer="16"/>
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layer="16"/>
<wire x1="30.6" y1="33.4" x2="32" y2="32" width="1.016" layer="16"/>
</signal>
<signal name="L_S_HB">
<contactref element="V2" pad="11"/>
<contactref element="V1" pad="12"/>
<contactref element="V4" pad="9"/>
<wire x1="57.2" y1="40.49170625" x2="57.2" y2="40.48" width="1.016"
layer="16"/>
<wire x1="56.52" y1="62.02" x2="55.53170625" y2="62.02" width="1.016"
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<wire x1="53.5388" y1="60.02709375" x2="53.5388" y2="44.15290625"
width="1.016" layer="16"/>
<wire x1="53.5388" y1="44.15290625" x2="57.2" y2="40.49170625"
width="1.016" layer="16"/>
<wire x1="57.2" y1="40.48" x2="57.2" y2="40.46829375" width="1.016"
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width="1.016" layer="16"/>
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<signal name="N$18">

<contactref element="V4" pad="13"/>
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<wire x1="27.74" y1="28.42" x2="28" y2="28.16" width="1.016" layer="1"/>
<wire x1="28" y1="28.16" x2="28" y2="26.65236875" width="1.016"
layer="1"/>
<wire x1="40.44" y1="28.42" x2="40.44" y2="26.44" width="1.016"
layer="1"/>
<wire x1="40.44" y1="26.44" x2="39" y2="25" width="1.016" layer="1"/>
<wire x1="28" y1="26.65236875" x2="29.65236875" y2="25" width="1.016"
layer="1"/>
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</signal>
<signal name="N$10">
<contactref element="V3" pad="8"/>
<contactref element="V4" pad="12"/>
<wire x1="40.76" y1="43.42" x2="40.76" y2="40.24" width="1.016"
layer="1"/>
<wire x1="40.76" y1="40.24" x2="43" y2="38" width="1.016" layer="1"/>
<wire x1="43" y1="34" x2="43" y2="38" width="1.016" layer="1"/>
<wire x1="30.28" y1="29.28" x2="30.28" y2="28.42" width="1.016"
layer="1"/>
<wire x1="30.28" y1="28.42" x2="30.28" y2="30.0988" width="1.016"
layer="1"/>
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layer="1"/>
<wire x1="41.8188" y1="32.8188" x2="43" y2="34" width="1.016"
layer="1"/>
<wire x1="33" y1="32.8188" x2="41.8188" y2="32.8188" width="1.016"
layer="1"/>
</signal>
<signal name="OUT_BSPD">
<contactref element="V4" pad="11"/>
<contactref element="J5" pad="1"/>
<wire x1="45.3496" y1="30.6504" x2="46" y2="30" width="1.016"
layer="1"/>
<wire x1="46" y1="30" x2="46.23" y2="29.77" width="1.016" layer="1"/>
<wire x1="32.82" y1="28.42" x2="32.82" y2="29.09079375" width="1.016"
layer="1"/>
<wire x1="34.61300625" y1="30.8838" x2="45.1162" y2="30.8838"
width="1.016" layer="1"/>
<wire x1="45.1162" y1="30.8838" x2="45.3496" y2="30.6504" width="1.016"
layer="1"/>
<wire x1="32.82" y1="29.09079375" x2="34.61300625" y2="30.8838"
width="1.016" layer="1"/>
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<signal name="N$16">
<contactref element="D1" pad="C"/>

<contactref element="IC4" pad="1"/>
<wire x1="11.61" y1="67.02" x2="12.25" y2="67.66" width="1.016" layer="16"/>
<wire x1="12.25" y1="67.66" x2="14" y2="67.66" width="1.016" layer="16"/>
<wire x1="14" y1="67.66" x2="14.66" y2="67.66" width="1.016" layer="16"/>
<wire x1="14.66" y1="67.66" x2="15.39" y2="68.39" width="1.016" layer="16"/>
<wire x1="15.41" y1="74.04" x2="15.41" y2="69" width="1.016" layer="16"/>
<contactref element="D2" pad="C"/>
<contactref element="C3" pad="1"/>
<wire x1="15.41" y1="69" x2="15.41" y2="67.68" width="1.016" layer="16"/>
<wire x1="14" y1="67.66" x2="15.34" y2="69" width="1.016" layer="16"/>
<wire x1="15.34" y1="69" x2="15.41" y2="69" width="1.016" layer="16"/>
<wire x1="11.61" y1="63.42" x2="11.61" y2="67.02" width="1.016" layer="16"/>
<wire x1="15.41" y1="67.68" x2="15.39" y2="67.66" width="0" layer="19" extent="16-16"/>
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<signal name="N$20">
<contactref element="J7" pad="1"/>
<contactref element="D2" pad="A"/>
<wire x1="27.39" y1="73.39" x2="29.22" y2="73.39" width="1.016" layer="16"/>
<wire x1="25.55" y1="67.66" x2="25.55" y2="71.55" width="1.016" layer="16"/>
<wire x1="25.55" y1="71.55" x2="27.39" y2="73.39" width="1.016" layer="16"/>
</signal>
<signal name="N$14">
<contactref element="IC2" pad="1"/>
<contactref element="C2" pad="2"/>
<contactref element="Q10" pad="3"/>
<wire x1="7.8" y1="51.42" x2="22.23" y2="57.66" width="0" layer="19" extent="1-1"/>
<wire x1="14.63" y1="16.54" x2="7.8" y2="51.42" width="0" layer="19" extent="1-1"/>
</signal>
<signal name="N$15">
<contactref element="IC1" pad="1"/>
<contactref element="Q9" pad="3"/>
<contactref element="C1" pad="2"/>
<wire x1="7.5" y1="39.42" x2="22.31" y2="61.66" width="0" layer="19" extent="1-1"/>
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Since Version 8.2, EAGLE supports online libraries. The ids
of those online libraries will not be understood (or retained)
with this version.
</note>
<note version="8.3" severity="warning">
Since Version 8.3, EAGLE supports URNs for individual library
assets (packages, symbols, and devices). The URNs of those assets
will not be understood (or retained) with this version.
</note>
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Since Version 8.3, EAGLE supports the association of 3D packages
with devices in libraries, schematics, and board files. Those 3D
packages will not be understood (or retained) with this version.
</note>
</compatibility>
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